

8. (Amended) A composition [or method] according to claim 3[,6, or 7] in which the cofactor is soluble in water.

9. (Amended) A composition [or method] according to claim 7[or 8] in which the cofactor comprises catechin.

10. (Amended) A composition [or method] according to [any of claims] claim 7 [to 9] in which the cofactor comprises catechol.

11. (Amended) A composition [or method] according to [any preceding claim] claims 1 or 2 in which the non-enzymatic bifunctional crosslinking agent comprises glutaraldehyde.

12. (Amended) A composition [or method] according to [any preceding claim] claims 1 or 2 in which the non-enzymatic bifunctional crosslinking agent comprises a di-isocyanate.

13. (Amended) A composition [or method] according to claim 12 in which the di-isocyanate is Trixene.

14. (Amended) A composition [or method] according to [any preceding claim] claims 1 or 2 in which the non-enzymatic bifunctional crosslinking agent comprises a quinone.

15. (Amended) A composition [or method] according to claim 14 in which the quinone is a benzoquinone.

16. (Amended) A composition [or method] according to [any preceding claim] claims 1 or 2 in which the phenol oxidase and the phenol hydroxylase is a tyrosinase.

17. (Amended) A composition [or method] according to claim 16 in which the tyrosinase is a mushroom tyrosinase.

18. (Amended) A composition [or method] according to claim 17 in which the mushroom tyrosinase is *Agaricus bisporus* tyrosinase.

21. (Amended) [Use of composition or] A method [according to any preceding claim] for binding substrates

together comprising adhering said substrates with a composition according to any one of claims 1, 2 or 19.

22. (Amended) [Use] A method according to claim 21 in which the substrates are non water-absorbent.

23. (Amended) [Use] A method according to claim 21 in which the substrates are water absorbent.

24. (Amended) [Use] A method according to claim 21 in which the substrates comprise a non water-absorbent substrate and a water absorbent substrate.

25. (Amended) [Use] A method according to claim [22 or 24] 21 in which [the non water-absorbent substrate or] at least one of said substrates comprise at least one of metal or plastic.

26. (Amended) [Use] A method according to claim [23 or 24] 21 in which [the water absorbent substrate or] at least one of the substrates comprise at least one of wood, leather, cotton, paper, carpet, or textile.

27. (Amended) [Use according to claim 21 as a binder of] A method for binding particulates comprising binding said particulates with a composition according to any one of claims 1, 2 or 19.

28. (Amended) [Use] A method according to claim 27 in which the particulates comprise at least one of sand or glass fibre.

29. (Amended) [Use according to claim 21 as an [undercoat to] A method of undercoating a coating comprising applying the composition according to any one of claims 1, 2 or 19 to a substrate followed by application of said coating over said composition.

30. (Amended) [Use] A method according to claim 29 in which the coating is a paint.

31. (Amended) [Use] A method according to claim 29 in which the coating is an adhesive.

32. (Amended) [Use according to claim 21 as a suture] A method for closing a wound comprising applying the composition according to any one of claims 1, 2 or 19 to said wound.

33. (Amended) [Use] A method according to claim 32 [in a method for closing a wound] wherein said composition applied to said wound forms a suture.

34. (Amended) [Use according to claim 21 as] A food product having a gelling agent comprising the composition according to anyone of claims 1, 2 or 19. [in food products].

35. (Amended) A pharmaceutical composition comprising a pharmaceutically active ingredient and a crosslinked adhesive composition according to any of claim 1, 2 or [to 3 or 7 to] 19.

36. (Amended) A kit for manufacture of an adhesive, the kit comprising separate components, wherein admixture of the separate components forms an adhesive composition according to any of claims 1, 2 or [to 3 or 7 to] 19.

37. (Amended) A kit for manufacture of an adhesive that comprises separate first and second components, the first component comprising an extensin protein, the second component comprising: either

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